(No Model.)

# R. B. CHUTE.

## WITHE BAND STAY FOR MASTS.

No. 332,232. Patented Dec. 15, 1885.

Fig. 1.

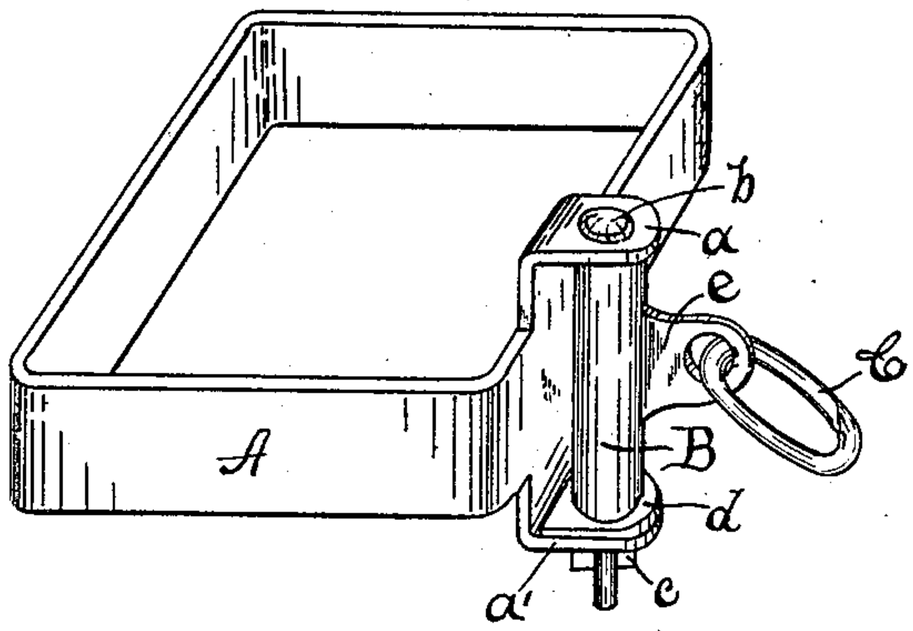
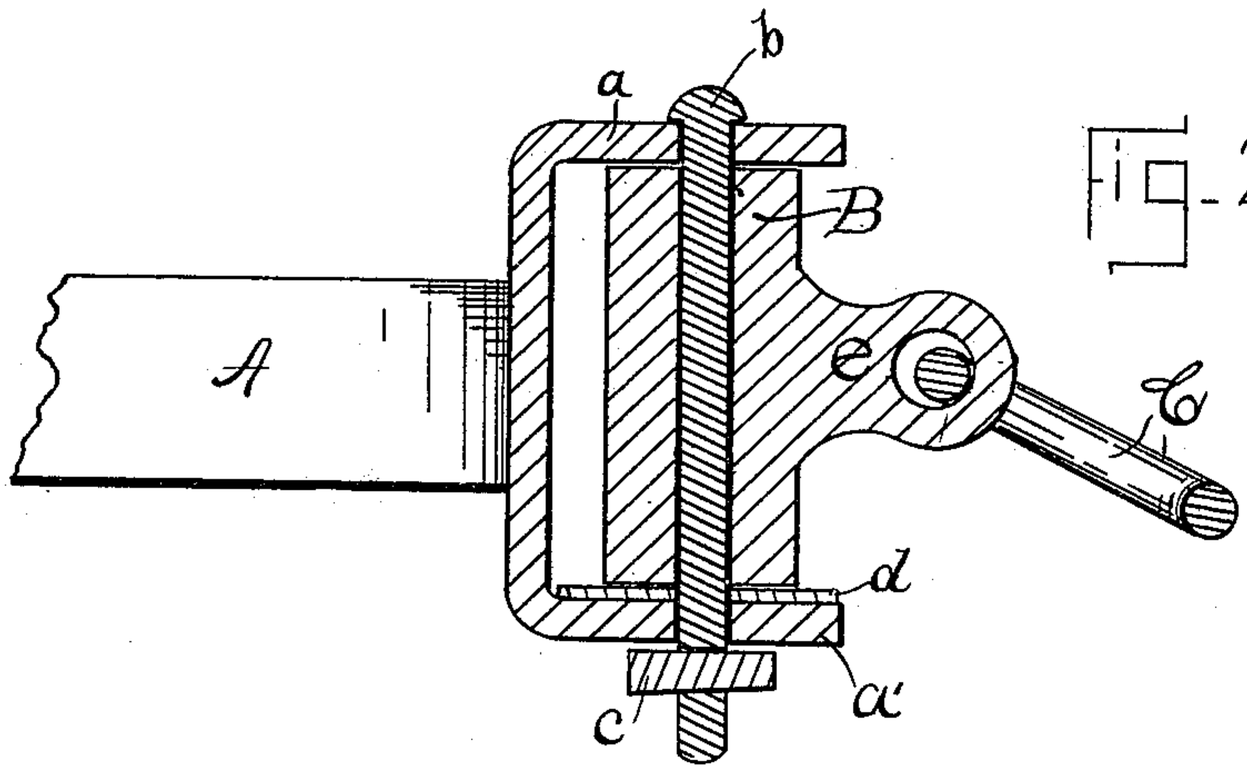



Fig. 2.




Witnesses—
Tyler J. Howard.
S. H. Crandall.

Inventor—
Richard B. Chute
By his Attorney
Frank K. Allen

# UNITED STATES PATENT OFFICE.

RICHARD B. CHUTE, OF NEW LONDON, CONNECTICUT.

## WITHE-BAND STAY FOR MASTS.

SPECIFICATION forming part of Letters Patent No. 332,232, dated December 15, 1885.

Application filed April 30, 1885. Serial No. 163,925. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD B. CHUTE, a citizen of the United States, residing in the city and county of New London, and State of Connecticut, have made certain new and useful Improvements in Withe-Band Stays for Masts, which improvements are fully set forth and described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 shows my improved withe-band stay for masts, ready to be applied to the mast, and Fig. 2 is a vertical sectional view through the center of the portion which embodies my improvement, as hereinafter described.

This invention relates to that portion of a vessel's tackle commonly known as "withe-band stays" or "mast-straps," the same being used universally on so-called "fore-and-aft" vessels to support the blocks through which the peak and throat halyards are rove; and it is my purpose in this invention to so improve said stays that they will be practically indestructible.

So far as I am acquainted with the state of the art, most or all of the stays heretofore in common use have been so constructed that a constant wear has been experienced in the eye which supports the block-hook, or its connecting-shackle, and when the great amount of friction resulting from the use of the enormous sails necessary to propel the class of fore-and-aft vessels now commonly used is considered, it will be readily seen that such stays would be quickly worn out and must be replaced by new ones.

In the form of stay which I will proceed to describe, the several parts are so connected that a universal movement is allowed the connecting-shackle, and a long bearing is given to that part which receives the most motion and consequent wear.

Referring to the annexed drawings, the strap or stay A is of the usual construction, being formed of metal and fitted to the upper squared end of the mast proper. On the rear side of the stay A are projecting right-angular brackets *a a'*, which are preferably integral parts of said stay, although they may be formed as a separate forging and then securely bolted to said stay. These brackets *a a'* are drilled or otherwise perforated to receive a vertical pin, *b*, which, when the several parts are assembled, is held in place by a key, *c*, or, if preferred, by a threaded nut. Fitting loosely on pin *b*, between the brackets *a a'*, is a tubular metallic piece, B, whose lower end, instead of resting on bracket *a'*, is supported by an intervening washer, *d*, which washer is kept from rotating by the engagement of its squared inner side with the angle of bracket *a'*. By thus providing washer *d*, all wear on bracket *a'* is avoided, and it will be understood that when said washer becomes worn a new one may be substituted quickly and at a nominal expense and without removing the stay from the mast.

Extending outward from the tubular piece B is an integral lug, *e*, which is perforated to form an eye to receive a link, C. This link C receives in turn the shackle, to which is attached the pulley-block, or, if preferred, the block-hook may be connected directly with said link.

The pin *b* may be left free to rotate, or may be held in a given position by providing a lip or lug under its head, which engages a corresponding recess in bracket *a*. It will now be seen that an almost universal movement is allowed the block, that it is free to swing from side to side without clamping, and that the long bearing provided in the tubular piece B prevents undue wear.

Having thus described my invention, I claim—

1. A stay or strap adapted to encircle the mast, provided with angular perforated brackets *a a'*, in combination with a tubular piece adapted to enter loosely between said brackets, and provided with an integral perforated lug and a pin, which, passing through the perforated brackets and tubular piece, forms a swivel-connection with said stay or strap, substantially as described, and for the purpose specified.

2. In combination with a mast-stay having integral brackets *a a'*, the tubular piece B, provided with perforated lug *e*, link C, washer *d*, and pin *b*, all being connected and used substantially as herein described, and for the object set forth.

RICHARD B. CHUTE.

Witnesses:
TYLER J. HOWARD,
FRANK H. ALLEN.